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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/446,144	03/02/2000	CARLO RUBBIA	P5634	1854

7590 06/02/2003

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EXAMINER

KEITH, JACK W

ART UNIT

PAPER NUMBER

3641

DATE MAILED: 06/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/446,144

Applicant(s)
Rubbia

Examiner
Jack Keith

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3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 14, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above, claim(s) 10, 11, 13-16, 26, 27, 29, 30, and 33-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12, 17-25, 28, 31, and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/14/2003 have been fully considered.

With regard to the 112, first paragraph rejections of section 5 of Paper no. 13 the examiner withdraws all, but one. The issue raised of the target consistency. Claim 1 implies that the exposed material is distributed in a portion of the diffusing medium. The question raised in target consistency is one of homogeneous mixture, heterogeneous, etc. Here the term "portion" implies that consistency throughout the diffusing medium of the exposed material is not uniform. How and in what manner is this achieved and maintained throughout applicant's operation.

Referring to applicant's arguments regarding the 112, first rejection of claim 5. Applicant's arguments refer to a non-elected species figure 7a. Applicant elected species 7b. The 112, first paragraph rejection of claim 5 is herein incorporated by reference as applicant's arguments are not directed to the rejection at hand or the elected invention.

Regarding the 112, second paragraph rejection of the phrase "arranged so that" applicant's arguments are not persuasive. Here the phrase "arranged so that" refers to the diffusing medium wherein a portion of the medium contains the exposed material. As set forth in the 112, first rejection above and in Paper no. 13 the target consistency is in question. Therefore, since the target consistency is in question how the diffusing medium is arranged is also questionable. The language "arranged so that" is not definite and provides no concrete

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structural limitation to the claim language, thus the language as set forth in the 112, second paragraph rejection is proper. Applicant should revise his claims to be consistent with that of his disclosed invention. The 112, second paragraph rejection of claims 1 and 17 are herein incorporated by reference.

Applicant's arguments regarding the terms "portion" and "region" as set forth above are directed to non-elected species figure 7a. Applicant elected species 7b. The 112, second paragraph rejection of claims 3-5 and 18-20 are herein incorporated by reference as applicant's arguments are not directed to the rejection at hand or the elected invention.

Regarding the 102 rejection utilizing Bowman applicant argues that the diffusing medium of Bowman is not capable of being transparent to neutrons. Applicant cites the high power of the accelerator utilized by Bowman as being why Bowman's neutron flux is high.

First, it is noted that the features upon which applicant relies (i.e., accelerator intensity, neutron flux intensity) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Second, referring to page 51, lines 6+ of the specification the elected species (figure 7b) employs a high energy beam. Bowman column 4, lines 60+ sets forth beam ranges from 400 MeV to 10 GeV. Clearly, Bowman is capable of meeting applicant's claimed inventive concept.

Applicant argues that the diffusing medium of Bowman is not capable of being transparent. The examiner disagrees. Clearly the diffusing medium of Bowman is transparent as

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the container (98) located within the diffusing medium allows for the transmutation of waste located therein. The diffusing medium of Bowman surrounds the container (98) thus any transmutation of the waste located in the container is by neutrons passing through the diffusing medium and interacting with the waste in the container.

The 102 (b) rejection utilizing Bowman is herein incorporated by reference.

Applicant's arguments to the 103 rejections set forth in Paper no. 13 depend directly on the diffusing medium of Bowman not be transparent. As set forth above this is not the case. The 103 rejections of Paper no. 13 are herein incorporated by reference.

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

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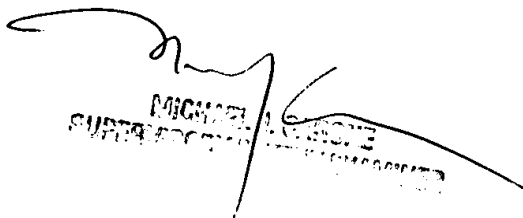
will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

3. This application contains claims 10, 11, 13-16, 26, 27, 29, 30 and 33-48 drawn to an invention nonelected with traverse in Paper No. 12. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Keith whose telephone number is (703) 306-5752. The examiner can normally be reached on Monday through Friday from 7:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



MICHAEL CARONE
SUPERVISOR

Jack Keith
Examiner,
Art Unit 3641

jwk

May 29, 2003